PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	International variations in primary care physician consultation time: A systematic review of 67 countries
AUTHORS	Irving, Greg; Neves, Ana Luisa; Dambha-Miller, Hajira; Oishi, Ai; Tagashira, Hiroko; Verho, Anistasiya; Holden, John

VERSION 1 - REVIEW

REVIEWER	Stewart Mercer University of Glasgow Scotland
REVIEW RETURNED	06-Jun-2017

GENERAL COMMENTS	This is an important systematic review on a very important topic. the authors have performed an excellent review on a difficult topic to research, and are to be congratulated for this endeavour. I only have a few comments. the abstract states that the consultation length is to be measured in minutes and then goes on to give results in seconds for Bangladesh. Suggest remove minutes. The objectives in the abstract need some comma's inserted. The relationship with GP burn-out in abstract should be changed to state that only one aspect of this was found to be related to consultation length, namely inefficiency. I wonder why the authors don't mention the positive relationship found with physician satisfaction, which seems important to mention. I also wonder why no mention of decrease in admissions for diabetes? Again important finding. Introduction Generally fine but I think some important references have been missed. I attach these in the uploaded file. The authors cite a letter I published in the BMJ but there is a full paper on this which should be cited instead (Hasegawa et al 2005) which I have copied in full below. I also think my work on longer consultations leading to higher patient enablement should be cited (Mercer et al 2007), and our work showing that consultations in deprived areas are shorter than in affluent (Mercer and Watt 2007). Finally reference 13 should be replaced by our key papers on this work, Mercer eta al 2016 and 2017. All the references for these papers are shown below in full. Some of these papers may also need to be mentioned in the discussion, e.g., under inverse care law. Results I found the results on the associations with outcomes confusing. the reasons for the various adjustments made should be made clear.

	The burn-out associations is also rather unclear and should be explained more here and in the discussion. Discussion Generally fine. As above I would like more explanation of the association with burn-out and what this means. It should be made clearer why the association with 'inefficiency' was to be expected. The authors say that there is a relationship with length and diabetes and COPD but in the results they say no relationship with COPD. is this an error? The inverse care law needs the original reference to this (Hart) and perhaps other more recent ones. References to be added: Hasegawa H, Reilly D, Mercer SW, Bikker AP. Holism in primary care: the views of Scotland's general practitioners. Primary Health Care Research and Development 2005, 6, (4), 320-328 Mercer SW and Watt GMC. The inverse care law: clinical primary care encounters in deprived and affluent areas of Scotland. Annals of Family Medicine 2007, 5: 503-510 Mercer SW, Fitzpatrick B, Gourlay G, Vojt G, McConnachie A, Watt GCM. More time for complex consultations in a high deprivation practice is associated with increased patient enablement. BJGP 2007, 57: 960-966 Mercer SW, O'Brien R, Fitzpatrick B, Higgins M, Guthrie B, Watt G, Wyke S. The development and optimisation of a primary care-based whole system complex intervention (CARE Plus) for patients with multimorbidity living in areas of high socioeconomic deprivation. Chronic Illness. Published online before print April 10, 2016, doi: 10.1177/1742395316644304 Mercer SW, Fitzpatrick B, Guthrie B, Fenwick E, Grieve E, Lawson K, Boyer N, McConnachie A, Lloyd SM, O'Brien R, Watt GCM, Wyke S. The Care Plus study- a whole system intervention to improve quality of life of primary care patients with multimorbidity in areas of high socioeconomic deprivation: cluster randomised controlled trial. BMC Medicine 2016, 14:88 with these suggested changes and additions I feel the paper will be acceptable for publication.

REVIEWER	Andrew Wilson University of Leicester, UK.
REVIEW RETURNED	08-Jun-2017

GENERAL COMMENTS	This is an important review which will be of interest to clinicians, researchers and policy makers internationally. The following are some suggestions for the authors to consider improve clarity: 1. In the first bullet of the article summary it is stated that 'length of consultation is increasingly under pressure' and there are 'concerns about less time with the physician'. Similarly in the first paragraph reference is made to the 'impact of shorter consultations'. There do not seem to be any references to support the contention that consultations are getting shorter and the results suggest that at least in some countries they are getting longer.

	2. In the third bullet of the summary reference is made to 'well documented differences between rural and urban practices'. This is repeated in the discussion but there is no reference to support this nor elaboration of what this difference is. 3. It is unclear what the starting date for inclusion is. The search was for papers published from 1980 but UK data from 1952 are included. 4. The use of the phrase 'health outcomes' may be misleading as what is presented under this heading relates more to process measures (admission rates etc) than to what might be expected, such as health status or mortality. 5. In the last paragraph of the results section it would be useful to know how many studies/countries contributed to the outcomes listed (ie burnout, investigation and admission rates). I was also unclear about what is meant by 'burnout relating to inefficiency'. 6. Further proof reading is needed to reduce the number of typos, for example 'consolation length', p3 line 20 and p8 line 39, and 'distasted', p5 line 7. Some references also seem incomplete, eg 3 and 5.

VERSION 1 – AUTHOR RESPONSE

• Consultation length is reported in minutes throughout
• We have taken on board the reviewer's comments on burn out and the fact that we have only examined one aspect of this. Therefore we have been clearer in referring to ''reduced personal accomplishment'' rather than ''burn out''. Further, there is an additional paragraph discussing this within the discussion.
• Further text reporting on the positive relationship found between with physician satisfaction and decrease in admissions for diabetes as recommended by reviewer 1
• Additional references included and changes to existing references have been made accordingly
• Specific reference included on differences between urban and rural practices as suggested by

reviewer 2
• In term of reviewer 2's comments on the date range; there was no restriction for the date range when searching Medline. Therefore, this should cover the date range for Medline (1946-2016). Secondary referencing was also undertaken.
• The number of observations is already included for each association as suggested by reviewer 2.

VERSION 2 – REVIEW

REVIEWER	Stewart Mercer General Practice and Primary Care Institute of Health and Wellbeing University of Glasgow Scotland
REVIEW RETURNED	20-Jul-2017

GENERAL COMMENTS	happy with the responses and paper now ready for publication

REVIEWER	Andrew Wilson University of Leicester, UK
REVIEW RETURNED	18-Jul-2017

GENERAL COMMENTS	The authors have responded appropriately to the first round of reviewers' comments.

VERSION 2 – AUTHOR RESPONSE

1. Verho, Anistasiya's name don't match from main document to scholar one
We have corrected this on the manuscript

2. Please include Figure legends at the end of your main manuscript.
We have added these at the end of the manuscript including converting figure 3 a b c into a single figure

3. With Figure 8 citation but no Figure legends and not uploaded.
This was an error and has been corrected

4. Consultation length search strategy.docx not cited as supplementary file.
We have included this within the text

5. Please provide another copies of your figures with better qualities. NOTE: They can be in TIFF or JPG format and make sure that they have a resolution of at least 300 dpi. Figures in PDF, DOCUMENT, EXCEL and POWER POINT format are not acceptable.
Thank you for agreeing to accept our figures with the current high quality output from STATA.

We hope that we have answered your queries and are grateful for your further consideration